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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,716	08/25/2003	Thomas J. Kelly	08350.3304-01	9855

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EXAMINER	
HO, CHUONG T	

ART UNIT	PAPER NUMBER
2619	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,716	KELLY ET AL.	
	Examiner	Art Unit	
	CHUONG T. HO	2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 March 2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *35-42,44,46 and 47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *35-42,44,46 and 47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 03/26/08 have been entered and made of record.

2. Applicant's arguments with respect to claims 35, 36-38, 39-42, 44, 46, 47 have been considered but are moot in view of the new ground(s) of rejection.

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/26/08 has been entered.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 03/26/08 was filed after the mailing date of the Final Rejection on 11/28/07. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. Claims 35, 36-38, 39-42, 44, 46, 47 are pending.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 35, 36-38, 39-42, 44, 46, 47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bahren (US 7,089,343) in view of Klausner et al. (US 7,046,638).

Regarding to claim 35, Bahren (US 7,089, 343) discloses receiving, by the gateway (figure 1, 103, 107, 109, 108), a message in a first system (CAN system), the message including: a first parameter value in a format consistent with the system (figure 3, lines 45-46, the parameters); and a parameter identifier corresponding to the first parameter value (col. 6, lines 23-25); scaling (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) the first parameter value to a second parameter value consistent with a second system (MOST system) using a scale factor (col. 6, line 10, scaling of parameters) associated with the second system (MOST system); and transmitting the second parameter value via the second system (MOST system) to a destination module (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67); extracting the parameter identifier and storing the first parameter value (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren (7,089,343) is silent to disclosing receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol.

Klausner et al. disclose receiving, by a gateway onboard a machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306), a message from a module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) off-board the machine in a first data link protocol (figure 3, Bluetooth protocol) used by the off-board module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) ; and transmitting the message via the second data link protocol (figure 3, CAN protocol) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor), and then puts them in the payload of the target protocol's protocol data units (PDUs)); the second data link protocol (figure 3, CAN protocol) used by a destination module (figure 3, CAN controller 301) onboard the machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306); and transmitting message containing the second parameter value via the second data link protocol (figure 3, CAN protocol) to the onboard destination module (figure 3, CAN controller 301) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303

retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizesreceiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to provide wireless access to a bus, such as that provided in an automobile (See US 7,046,638, col. 1, lines 49-50). Therefore, the combined system would have been enable to allow development of devices connected toe th second bus system without consideration of the parameters of the first bust system and compatible with second bus system whith message derived from the first bus system (See 7,089,343 B2, col. 1, lines 35-37).

3. Regarding to claim 36, Bahren discloses receiving, by a gateway, a message in a first system (CAN system) used by a machine, the message including a parameter identifier; matching, by the gateway, the parameter identifier with a corresponding parameter identifier included in a translation table associated with the gateway, scaling a parameter value contained in the message to a second parameter value consistent with a second system using a scale factor associated with the matched parameter

identifier, and sending a message including the second parameter value to module using the second system (MOST system) (figure 3, lines 45-46, the parameters) (col. 6, lines 23-25) (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67) (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren (7,089,343) is silent to disclosing receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol.

Klausner et al. disclose receiving, by a gateway onboard a machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306), a message from a module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) off-board the machine in a first data link protocol (figure 3, Bluetooth protocol) used by the off-board module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) ; and transmitting the message via the second data link protocol (figure 3, CAN protocol) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor), and then puts them in the payload of the target protocol's protocol data units (PDUs)); the second data link protocol (figure 3, CAN protocol) used

by a destination module (figure 3, CAN controller 301) onboard the machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306); and transmitting message containing the second parameter value via the second data link protocol (figure 3, CAN protocol) to the onboard destination module (figure 3, CAN controller 301) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizesreceiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to provide wireless access to a bus, such as that provided in an automobile (See US 7,046,638, col. 1, lines 49-50). Therefore, the combined system would have been enable to allow development of devices connected toe th second bus system without consideration of the parameters of the first bust system and compatible with second bus system whith message derived from the first bus system (See 7,089,343 B2, col. 1, lines 35-37).

4. Regarding to claim 37, Bahren discloses the limitations of claim 36 above.

However, Bahren is silent to disclosing the first data link protocol is a proprietary data link protocol.

Klausner et al. discloses the first data link protocol is a proprietary data link protocol (see abstract).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizes receiving, by a gateway, a message in a first data link protocol; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway, a message in a first data link protocol; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to communicate data from single data link protocol to multiple data link protocols. Therefore, the combined system would have been enable to determine the inconsistent protocols, and to provide corresponding interface devices.

5. Regarding to claim 38, Bahren discloses wherein the second data link protocol is a non-proprietary protocol including one of a J1939 protocol, a CAN protocol (CAN system), a MODBUS protocol, a serial standard data link protocol, and an Ethernet protocol. (see figure 1) (CAN system).

6. Regarding to claim 39, Bahren discloses a translation table (col. 3, lines 30-35, rule) implemented in a memory device, the translation table including: at least one

parameter identifier (col. 5, lines 15-25, parameters), a plurality of scale factors (col. 5, lines, 15-25, different scaled) associated with the at least one parameter identifier, wherein each of the plurality of scale factor corresponds to a different system (MOST system), and a universal storage section for storing a parameter data value associated with the at least one parameter identifier; and a gateway residing in a machine configured to access the translation table, wherein the gateway device: receives a message, including a first parameter identifier and a first parameter value, from a first system used by the machine, determining the first parameter identifier matches the at least one parameter identifier in the translation table (col. 3, lines 65-67), when a match is found by the gateway, scales (col. 5, lines 15-25, scaled) the first parameter value to a second parameter value consistent with a second system (MOST system) using the scaled factor corresponding to the matched parameter identifiers, and outputs the second parameter value to a second data link using the second system (MOST system) (figure 3, lines 45-46, the parameters) (col. 6, lines 23-25) (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67) (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren (7,089,343) is silent to disclosing receiving, by a gateway onboard a machine configured to access the translation table, wherein the gateway

receives a message from a module onboard the machine a message from a module; the second data link protocol being used by a module off—board the machine.

Klausner et al. disclose receiving, by a gateway onboard a machine (figure 3, 306) configured to access the translation table, wherein the gateway receives a message from a module (figure 3, a machine includes 301, 302, 303, 304, 305) onboard the machine a message from a module; the second data link protocol (Bluetooth protocol) being used by a module off—board the machine (figure 3, Bluetooth Host 308.1-308.n).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizesreceiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to provide wireless access to a bus, such as that provided in an automobile (See US 7,046,638, col. 1, lines 49-50). Therefore, the combined system would have been enable to allow development of devices connected toe th second bus system without consideration of the parameters of the first bust system and compatible with second bus system whith message derived from the first bus system (See 7,089,343 B2, col. 1, lines 35-37).

7. Regarding to claim 40, claim 40 is rejected the same reasons of claim 37 above.

8. Regarding to claim 41, Bahren discloses wherein the first data link protocol is a non-proprietary protocol including one of a J1939 protocol, a CAN protocol (CAN system), a MODBUS protocol, a serial standard data link protocol, and an Ethernet protocol. (see figure 1) (CAN system).

9. Regarding to claim 42, claim 42 is rejected the same reasons of claim 38 above.

10. Regarding to claim 46, Bahren discloses receiving, by a gateway, a message in a first system (CAN system) used by a machine, the message including a parameter identifier; matching, by the gateway, the parameter identifier with a corresponding parameter identifier included in a translation table associated with the gateway, scaling a parameter value contained in the message to a second parameter value consistent with a second system using a scale factor associated with the matched parameter identifier, and sending a message including the second parameter value to module using the second system (MOST system) (figure 3, lines 45-46, the parameters) (col. 6, lines 23-25) (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67) (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren (7,089,343) is silent to disclosing receiving, by a gateway onboard a machine configured to access the translation table, wherein the gateway

receives a message from a module onboard the machine a message from a module; the second data link protocol being used by a module off—board the machine.

Klausner et al. disclose receiving, by a gateway onboard a machine (figure 3, 306) configured to access the translation table, wherein the gateway receives a message from a module (figure 3, a machine includes 301, 302, 303, 304, 305) onboard the machine a message from a module; the second data link protocol (Bluetooth protocol) being used by a module off—board the machine (figure 3, Bluetooth Host 308.1-308.n).

11. Regarding to claim 44, Bahren discloses a source module for sending a source message including content consistent with a first system (CAN system) , the source module couple to a source data link; a destination module for receiving the source message, the destination module located at a distance from the source module that exceeds a transmission range of the fist system; a first gateway (figure 1, 103)coupled to the source data link and an intermediate data link, the intermediate data link using a second system (MOST system), the gateway configured to: receiving the message from the source data link in the first system, encapsulate the message within the transmission unit consistent with the second system, and output the encapsulated message to the intermediate data link using the second system; and second gateway (figure 1, 108) coupled to the intermediate data link and the destination module, the second gateway (figure 1, 108) configured to: receiving the encapsulated message from the intermediate data link; extract the source message; translate content of the source

message to a format consistent with a second system (MOST system) different from the first system (CAN system) used by a destination data link coupled to the destination module; and route the translated message to the destination module over the destination data link (figure 3, lines 45-46, the parameters) (col. 6, lines 23-25) (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67) (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren (7,089,343) is silent to disclosing a source module onboard a first machine for sending a source message including content consistent with a first protocol used by the source module, the source module being coupled to a source data link that uses the first protocol.

Klausner et al. disclose a source module (figure 3, Bluetooth host 308.1 on board a first machine) for sending a source message including content consistent with a first protocol (Bluetooth protocol) used by the source module (figure 3, Bluetooth 308.1-308.n) being coupled to a source data link that uses the first protocol (Bluetooth protocol); a destination module (figure 3, 301) onboard a second machine for receiving the source message, the destination module (figure 3, 3010 located at a distance from the source module (figure 3, 308.1) that exceeds a transmission range of the first protocol. (figure 3, Bluetooth protocol); a first gateway (figure 3, 309.1) onboard the first machine and coupled to the source data link and to an intermediate data link

communicatively connecting the first machine (figure 3, the first machine includes 308.1, 309.1) and the second machine (figure 3, the second machine includes 301-306); a second gateway (figure 3, 306) onboard the second machine and coupled to the intermediate data link and to the destination module (figure 3, 301); comprising:

receiving, by a gateway onboard a machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306), a message from a module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) off-board the machine in a first data link protocol (figure 3, Bluetooth protocol) used by the off-board module (figure 3, Bluetooth host 308.1, 308.2,..., 308.n) ; and transmitting the message via the second data link protocol (figure 3, CAN protocol) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor), and then puts them in the payload of the target protocol's protocol data units (PDUs)); the second data link protocol (figure 3, CAN protocol) used by a destination module (figure 3, CAN controller 301) onboard the machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306); and transmitting message containing the second parameter value via the second data link protocol (figure 3, CAN protocol) to the onboard destination module (figure 3, CAN controller 301) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN

signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizesreceiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to provide wireless access to a bus, such as that provided in an automobile (See US 7,046,638, col. 1, lines 49-50). Therefore, the combined system would have been enable to allow development of devices connected toe th second bus system without consideration of the parameters of the first bust system and compatible with second bus system whith message derived from the first bus system (See 7,089,343 B2, col. 1, lines 35-37).

12. Regarding to claim 47, Bahren et al. disclose a translation table implemented in a memory device, the translation table including: at least one parameter identifier, a plurality of scale factors associated with the at least one parameter identifier, wherein each of the plurality of scale factors corresponds to a different data link protocol, and a universal storage section for storing a parameter value associated with the at least one

parameter identifier and a gateway configured to access the translation table, wherein the gateway: receives a message from a module including a first parameter identifier and a first parameter value, via a first data link, determines whether the first parameter identifier matches the at least one parameter identifier in the translation table, when a match is found by the gateway, scales the first parameter value to a second parameter value consistent with the second data link protocol using a scale factor corresponding to the matched parameter identifier, and output a message in the second data link protocol containing the second parameter value (col. 6, lines 23-25); scaling (col. 5, lines 15-17, differently scaled in the CAN system and MOST system) the first parameter value to a second parameter value consistent with a second system (MOST system) using a scale factor (col. 6, line 10, scaling of parameters) associated with the second system (MOST system); and transmitting the second parameter value via the second system (MOST system) to a destination module (col. 5, lines 15-23, col. 6, lines 10-25, lines 35-40, col. 2, lines 7-10, lines 55-67); extracting the parameter identifier and storing the first parameter value (col. 3, lines 45-46, this class supplied by the buffer memory 111) (col. 5, lines 56-57, extracting from the most message a function designator three bytes in length and checks whether this is contained in a list of known designators, col. 5, lines 56-57).

However, Bahren is silent to disclosing a gateway residing a machine and configured to access the translation table, wherein the gateway: receiving a message from a module off-board machine via a first data link used by the off-board module, and

output a message in the second data link protocol to the onboard module via a second data link used by the onboard module.

Klausner et al. disclose a gateway (figure 3, 306) residing a machine and configured to access the translation table (figure 3, protocol converter 305), wherein the gateway (figure 3, 306): receiving a message from a module off-board machine (figure 3, 308.1-308.n) via a first data link used by the off-board module (figure 3, 308.1), and output a message in the second data link protocol (figure 3, CAN protocol) to the onboard module (figure 3, 301) via a second data link used by the onboard module (figure 3, 301) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor), and then puts them in the payload of the target protocol's protocol data units (PDUs)); the second data link protocol (figure 3, CAN protocol) used by a destination module (figure 3, CAN controller 301) onboard the machine (figure 3, a machine includes 301, 302, 303, 304, 305, 306); and transmitting message containing the second parameter value via the second data link protocol (figure 3, CAN protocol) to the onboard destination module (figure 3, CAN controller 301) (col. 3, lines 60-62, Signals contained in CAN messages that pass the acceptance filter of the CAN controller 301 are passed on to the protocol converter 303. The protocol converter 303 retrieves CAN signals from CAN messages, computes the actual physical value of signals such as speed or RPM (typically by applying a scaling factor).

Both Bahren and Klausner disclose converting the messages from the first protocol system to the second protocol system. Klausner recognizesreceiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to incorporate receiving, by a gateway onboard a machine, a message from a module off-board the machine in a first data link protocol used by the off-board module; and transmitting the message via the second data link protocol taught by Klausner into the system of Bahren in order to provide wireless access to a bus, such as that provided in an automobile (See US 7,046,638, col. 1, lines 49-50). Therefore, the combined system would have been enable to allow development of devices connected toe th second bus system without consideration of the parameters of the first bust system and compatible with second bus system whith message derived from the first bus system (See 7,089,343 B2, col. 1, lines 35-37).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571)272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, EDAN ORGAD can be reached on (571) 272-7884. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

05/06/08

/CHUONG T HO/
Temporary Partial Signatory Examiner, Art Unit 2619